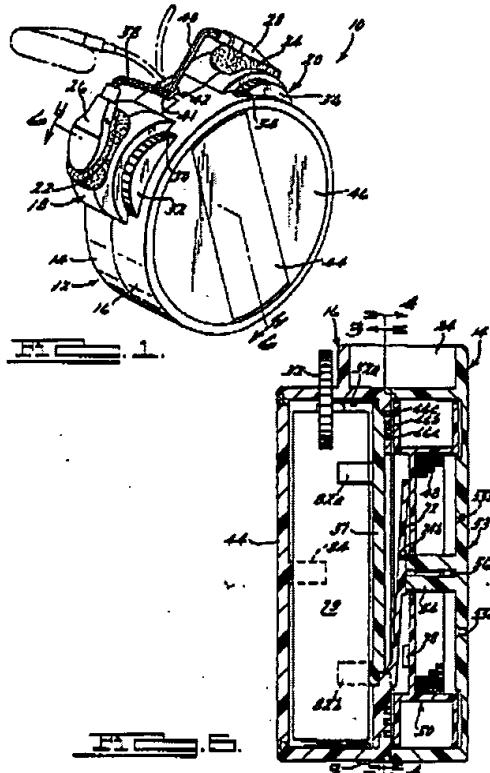


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DOCUMENT-IDENTIFIER: US 5339461 A
TITLE: Compact radio frequency receiver having take-up
spool housed earphone
conductors

DEPR:
With still further reference to FIG. 2, the printed circuit board 51 of the present invention 10 can be seen to fit nestably within the ratchet housing section 16 against outer surface 70. The printed circuit board 51 includes an FM stereo receiver/amplifier circuit 51a mounted thereon, which generally comprises an FM stereo receiver chip 51a-1, an FM stereo decoder chip 51a-2 and an audio amplifier chip 51a-3. These components are available from the Philips Corporation under part numbers TDA7021T, TDA704TO and TDA705TO respectively. The printed circuit board 51 further includes a notched portion 80 which fits over the base portion 72a of the ratchet arm 72 when assembled within the ratchet housing section 16.



File Edit View Tools Window Help

DOCUMENT-IDENTIFIER: US 6081000 A
 TITLE: AlAs oxide insulating layer between a conductive III-V substrate and an optoelectronic semiconductor device and method of manufacturing thereof

ORPL:
 MacDougal et al., "Ultralow Threshold Current Vertical-Cavity Surface-Emitting Lasers with AlAs Oxide -GaAs Distributed Bragg Reflectors", IEEE Photonics Technology Letters, No. 3, Mar. 1995, pp. 229-231.

United States Patent (D)
 Lell

[1] Patent Number 6,081,000
 [2] Date of Patent Jun. 27, 2000

[3] ALAS OXIDE INSULATING LAYER
 BETWEEN A CONDUCTIVE III-V
 SUBSTRATE AND AN OPTOELECTRONIC
 SEMICONDUCTOR DEVICE AND METHOD
 OF MANUFACTURING THEREOF

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 Germany

[75] Assignee Siemens Aktiengesellschaft, Munich,
 Germany

[11] Appl. No. 08/528,572
 [21] PCT Filed Sep. 11, 1997
 [22] PCT Int'l. Cl. C07D 27/00
 [31] PCT Inv. Name: Sep. 14, 1998
 [41] PCT Int'l. Inv. Name: Sep. 14, 1998
 [51] PCT Pub. No.: WO98/18564
 [61] PCT Pub. Date: Apr. 8, 1998

[24] Foreign Application Priority Data
 Sep. 27, 1996 [DE] Germany 196 45 000
 [51] Int. Cl. C07D 27/00
 [52] U.S. Cl. 257/153, 257/154, 257/152,
 257/244, 438/43, 438/47, 438/48
 [58] Field of Search 257/153, 257/154, 257/152,
 257/244, 438/43, 438/47, 438/48, 438/49,
 438/50, 438/51, 438/52, 438/53, 438/54
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DOCUMENT-IDENTIFIER: US 6075804 A
 TITLE: Semiconductor device having an oxide defined aperture

BSPR:
 It is another object of the invention to provide a vertical-cavity surface-emitting laser which utilizes the oxide -formed aperture.

United States Patent (n) US 6075804
 Deppe et al. (n) Patent Number: 6,075,804
 (n) Date of Patent: Jun. 13, 2000

[1] SEMICONDUCTOR DEVICE HAVING AN OXIDE DEFINED APERTURE

[2] Inventor: David G. Deppe, Arizona, Inc., Jack E. Jewell, Phoenix, Colo.

[3] Assignee: Phlantic Incorporated, Eugene, Ore.

[4] Appl. No.: 09/118,003
 [5] Filed: Jan. 28, 1999
 [6] Rel. Cl.: 110/142; 110/143; 110/145
 [7] U.S. Cl.: 373/24, 373/240
 [8] Field of Search: 217/94, 94, 93

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Primary Examiner—Thomas M. Amaya
 Assistant Examiner—Oscar F. Long
 Attorney, Agent or Firm—Fitzgerald & Associates
 [71] ABSTRACT

An improved structure is provided. The structure comprises a substrate 10 and a top layer 12, the top layer being oxidized to a laterally extended first region 20, the first layer being oxidized to a laterally extended second region 22. The second region being positioned above the first region 20, the second layer being oxidized later than the first layer, the second layer being positioned above the laterally extended second region 22, providing contact to another laterally extended second region 24 of the second layer 12.

10 Claims, 3 Drawing Sheets

DOCUMENT-IDENTIFIER: US 6171982 B1
 TITLE: Method and apparatus for heat-treating an SOI substrate and method of preparing an SOI substrate by using the same

ORPL:
 Y. Hayashi, et al., "Record Low-Threshold Index-Guided In GaAs/GAlAs Vertical-Cavity Surface-Emitting Laser With A Native Oxide Confinement Structure", Electronics Letters, vol. 31, No. 7, pp. 560-562 (1995).

L12: [40] (VCSEL or (v... | US 6171982 B1 | Tag: S | Doc: 8/40 | "Full..."

United States Patent
 San

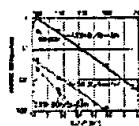
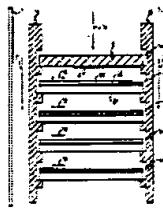
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Primary Examiner—Charles Brown
 Assistant Examiner—Ruth Kline
 (C) Attorney, Agent, or Firm—Fitzpatrick, Cella, Mayer & French

(57) ABSTRACT
 An SOI substrate having on the surface thereof a single crystal silicon film formed as an insulator is heat-treated in a hydrogen-containing reducing atmosphere in order to remove the surface and reduce the boron concentration without changing the film thickness uniformly to a single width. A heating chamber wherein the stacked structure is placed in can be used to provide uniform temperature distribution in a shorter time than conventional furnace heat treatment.

30 Claims, 12 Drawing Sheets

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Details